Unanticipated Consequences of a Pandemic Flu in New York City:

A Neighborhood Focus Group Study

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Executive Summary

There is fairly consistent evidence that ethnic and minority communities have historically been more vulnerable to disasters, less trusting of public authority, and often so socially marginalized that it placed them in harm's way. In an effort to explore some of these issues we conducted a series of community-based focus groups among selected ethnic communities in order to understand how perceptions of neighborhood life during a pandemic – and community adaptation – might vary across the city. We conducted the focus groups in six distinct New York City neighborhoods, each meant to represent a particular ethnic sub-group: Jamaican-Americans in Wakefield, Bronx; Chinese-Americans in Chinatown; African-Americans in Bedford-Stuyvesant, Brooklyn; Dominican-Americans in Washington Heights; Greek-Americans in Astoria, Queens; and South Indian-Americans in Flushing, Queens. Four of the focus groups were conducted in English, one was in Spanish, and one was in Mandarin, Chinese.

Key Findings

1. **Communities vary in their trust in and dependency on government, and in the strength of their social networks.** There is considerable variation among ethnic communities regarding their confidence in local government, their dependence upon government to furnish necessary survival staples, and the need for government to maintain civil order in the event of a pandemic. Chinatown participants were quite vocal in their trust and confidence in local government, although they also assumed that the government would provide for all their needs; Bedford-Stuyvesant participants, on the other hand, were quite distrustful of local government, although resignedly dependent. They were the most concerned about maintenance of civil order in their community. Jamaican and South Indian participants reported robust community-wide networks – the South Indian group referred to a wide-reaching listserv, and Jamaican participants described high levels of household preparedness and community-wide efforts to assist seniors to be prepared as well. Social proximity (or distance) to trusted information and medical expertise was also cited by a number of the groups. South Indian participants described their professional circles as evidence of access to accurate medical information and treatment, whereas Dominican and African-American participants explicitly noted their lack of such internal access or resources.

2. **There were common sources of trusted information.** Mayor Bloomberg was perceived as a credible messenger of health information. 311 and the radio were cited as trusted media sources during a crisis.

3. **Public health/emergency preparedness is not well "branded."** Participants reported a lack of clear, concise emergency messages. Several groups mentioned the effectiveness of the fire department's "stop, drop and roll" campaign, whereas none was familiar with the city's Ready New York campaign. Several mentioned the need for a recognizable face for governmental public health and many welcomed more consistent communication from the health department.

4. **Recommendations** included: (a) emergency health messages delivered by Mayor Bloomberg, flanked by doctors and NYCDOHMH officials; (b) simultaneous release of information to ethnic and international press outlets along with release to mainstream sources; (c) use and promotion of 311 as a source of health information during a pandemic flu; and (d) increased health department presence, outreach and messaging in communities during non-emergent times.

Introduction

The pace and scope of pandemic flu planning among local, state, and federal public health agencies have increased considerably over the past several years. The New York City Department of Health and Mental Hygiene's Pandemic Influenza Preparedness and Response Plan (July 2006) represents one of the more comprehensive plans that has emerged, encompassing surveillance and communication activities as well as protocols for pharmaceutical and non-pharmaceutical interventions (NPI). Community-level NPI's detailed in the city's plan include increased surveillance at ports, transportation hubs, and within the health care system; promotion of personal respiratory and hand hygiene; isolation of confirmed cases and possible quarantine of confirmed contacts; the possible closure of schools; the possible cancellation of public gatherings; and efforts to reduce crowding on mass transportation systems.

Among the many unknowns facing public health and emergency planners as they engage in such planning activities are the potential adverse social outcomes that may be a consequence of increased neighborhood and residential crowding, health system congestion, increasingly scarce resources (including monetary resources), major population shifts, and the degradation of various workforces (health care, urban infrastructure such as police and sanitation, critical infrastructure, etc.). Furthermore, it is unknown how various communities in New York will attend or respond to various risk communication and public health messages. Several comprehensive literature reviews in the peer-reviewed academic press have catalogued the ways that ethnic and minority communities have been historically more vulnerable to disasters, less trusting of public authority, and whose social isolation often places them in harm's way[1].

In an effort to explore some of these issues, we conducted a series of community-based focus groups among selected ethnic communities in order to understand how perceptions of neighborhood life during a pandemic – and community adaptation – might vary across the city. We further attempted to identify trusted messengers and to explore cultural understandings and beliefs which might directly impact citizens' adherence to the health department's guidelines and policies in the event of a pandemic flu. In order to represent a range of citizen groups, we conducted the focus groups in six distinct New York City neighborhoods, each meant to represent a particular ethnic sub-group; four of the focus groups were conducted in English, one in Spanish, and one in Mandarin, Chinese.

Study Description:

Study Design

Focus groups are widely used in the investigation of applied research problems. Using this self-contained research method allowed us to generate hypotheses about how people in culturally and geographically different New York neighborhoods might respond to instructions during a flu pandemic. Groups were structured by neighborhood; however, inclusion criteria required a heterogeneous population sample in each group. Therefore, we attempted to recruit an equal mix of men and women of various ages. Each focus group was composed of an average of 10 participants and lasted approximately 1.5 - 2 hrs.

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1 See DP Andrulis, NJ Siddiqui, and JL Gantner (2007). "Preparing racially and ethnically diverse communities for public health emergencies." *Health Affairs*, 26(5):1269-1279, and A Fothergill, EGM Maestas, and JD Darlington (1999). "Race, ethnicity and disasters in the United States: A review of the literature." *Disasters*, 23(2):156-173.

During each group, the moderator's initial job was to create a non-evaluative environment in which group members felt free to express their opinions without concern for the agreement or disagreement of others in the group. The moderator used probes as necessary (i.e., "can you explain more? or "why is that?") in cases in which the discussions did not produce the level of richness desired. In addition to the moderator, each focus group session had at least one note taker. The note taker's job was to observe the process of the focus group in detail, take notes on those observations, and record non-verbal interactions.

Participant Recruitment

Study participants were recruited from strategically identified neighborhoods, each representing different socio-economic and cultural communities throughout the city. After extensive scouting, the following neighborhoods were chosen because they represented distinct ethnic groups in four of the five boroughs, each with various income levels (**See Table 1**).

Table 1: **Focus Group Communities**

Community and Borough	Location of Group	Ethnicity	% Poverty vs. NYC avg (21%)
Chinatown, Manhattan	Local restaurant	Chinese (China and Hong Kong)	Slightly above (23%)
Washington Heights, Manhattan	Mailman School of Public Health	Dominican	Above (31%)
Bedford-Stuyvesant, Brooklyn	YMCA	African American	Above (31%)
Wakefield, Bronx	Local Church	Jamaican and Caribbean	Average (21%)
Astoria, Queens	Local restaurant	Caucasian/European; Greek	Slightly below average
Flushing, Queens	Hindu Temple	Indian and Bengali	Below average

Trained recruiters went to the selected neighborhoods to meet people and hand out flyers inviting them to participate in the study. Equal numbers of men and women were recruited and recruiters were instructed to include individuals ages 18-70. Each flyer had a unique study code particular to the neighborhood and listed the study director's contact information. Participants were instructed to call the study director to sign up and receive additional instructions.

In anticipation of a 50% drop out rate, the study director confirmed participation of the first 20 individuals from each neighborhood who met the criteria for inclusion. In situations when the drop out rate was less than 50%, the first 12 individuals were accepted and superfluous recruits were given incentives and thanked for their time. In other situations, more than the 50% drop out rate occurred and it was necessary to conduct focus groups with fewer than 10 participants. In order to avoid clustering, individuals who heard about the study by word of mouth but did not receive a flyer from the recruiter were not eligible for participation.

Confidentiality
Digital audio recordings were made for each focus group session for future analysis after typed transcription. Participants were made aware of this intent from the beginning and were assured their names would never appear on any document.

Study Questionnaire
A semi-structured interview guide was developed and a pilot study in Washington Heights was utilized to validate the questions. According to the interview guide, the trained focus group facilitator led each discussion around the following themes:

- Identification of barriers to compliance with quarantine or isolation orders and suggestions of means by which barriers can be overcome and identification of support systems

- Effects of home isolation, school and transit closures, home & community crowding, and subsequent service closures or system congestion on personal and neighborhood safety

- Best methods of effective risk communication, including identification of appropriate messengers and channels

Analysis of data
The first step of analysis was the transcription of the individual recordings. The completed transcripts were then compared to hand written notes taken during the respective group in order to fill in any inaudible gaps in the audio. In addition, the handwritten notes, taken by the note taker(s), assisted in describing the context and the flow of the session. The formal content analysis using the transcriptions, digital recordings and hand taken notes was conducted manually by the team.

Findings:

The focus groups provided rich data on numerous topics. Appendix A (general findings matrix) and Appendix B (communication matrix) present the findings by neighborhood.

Theme 1: Barriers to Quarantine or Isolation Orders and Identification of Sources of Support

- The level of basic preparedness varied from community to community. In Wakefield Bronx, every participant had some type of emergency kit and felt they could survive for a week in quarantine. Some members had full face gas masks. In the Chinatown group, members stated that not many families kept enough food, medicine and diapers that they could survive for a week in quarantine; however, they believed that in the situation of quarantine, the government would provide those things. The Dominican group in Washington Heights cited that it was not financially feasible to stockpile extra food.

> ***"How can we have that much food in the house if we are poor?"***
> Older Dominican woman, Washington Heights

- Trust in the police varied from neighborhood to neighborhood, with the Jamaican and African-American neighborhoods being skeptical that people of color would receive fair treatment during a quarantine situation. However, fire stations were seen as providing response not based on ethnicity of citizens and were perceived to be valuable sources of information and service during an emergency. Churches were also cited as institutions which could bring stability to a chaotic situation, such as quarantine.

> ***"A lot of people trust God more than the police"***
> Older man, Astoria Queens

- Data from the focus groups suggested that four of the six communities would rely on the government for information during medical emergencies; however, the motives for doing so differed. On the spectrum of trust in the government, Chinatown residents tended toward one extreme (complete trust), while Bedford-Stuyvesant residents tended toward the other (complete lack of trust); however, both communities would utilize the government as their main source of information during a pandemic flu. Bedford-Stuyvesant residents because, as one member of the focus group explained, "What other choice do we have?" and Chinatown residents because of the perception that "The government will tell us what to do and provide what we need during a quarantine."

  Two groups, the Jamaican group in Wakefield Bronx and the South Indian Group in Flushing Queens, reported that they would utilize their personal networks for information. In Wakefield, the pastors of churches seemed especially vital informants for the congregations. Most of the participants in that group had emergency kits in their homes already (some even had gas masks) and they regularly took emergency kits to neighbors who were homebound. This pattern seemed to arise from religious beliefs regarding the need to be prepared and from leadership of the church. In the South Indian group, the social networks were strong and well organized. The participants in that focus group indicated that they would immediately disseminate health information through their network via electronic list serves and Indian associations.

- There was the perception in all neighborhoods that the rich and medically well connected neighborhoods and communities would be the first to know about flu should one occur in
  NYC. In addition, many participants felt the wealthier communities would be the first to receive treatment. This sentiment was expressed in many ways and in numerous times in each group. One participant in Washington Heights expressed her beliefs this way:

> ***"If there is no cure, we will just die in our houses.***
> ***If there is a cure…we will be the last to receive it"***
> Middle aged Dominican woman, Washington Heights

- In every group, schools were mentioned as the best location for distribution of information and supplies. As one member of Bedford-Stuyvesant group explained, "There are schools in every district, so people will know where to go."

Theme 2: Effects of home isolation, school closures and perceived neighborhood cohesion during health emergencies

- It was difficult, if not impossible, for members of the focus groups to conceptualize what their neighborhoods and NYC would be like in the case of two month quarantine. However, communities did indicate what problems they foresaw happening. In Brooklyn, focus group members believed that in an emergency, "People will just save their skin." They referenced looting which occurred during the blackout and speculated that things could deteriorate further in a long term health event. Chinatown residents believed a black market for flu medications would develop.

  Neighborhood responses to the blackout were often used as reference guides for how a neighborhood would function during a health emergency, although it was acknowledged that the blackout was of short duration compared to what might occur during a pandemic flu or other health emergency. Using the blackout as an example, participants reported that neighborhood responses ranged from "neighbor helping neighbor" to "total chaos".

- When asked about the impact of school closure, all groups said they would do whatever was necessary to protect the children. However, the hardship of having children out of school for an extended period of time varied from community to community. The Indian community indicated that they imagined the kids would play/work on the computer all day long in the case of quarantine. As one dad explained, "That is what the kids do all day long anyway." The Chinese community suggested it would be helpful if the schools used "distance learning" in the case of a quarantine, so that the children would be able to utilize the internet to download their assignments and to view lectures.

Theme 3: Best Methods of Effective Risk Communication

- In all groups, radio was mentioned as being the mechanism by which emergency health information could be most easily accessed. Some of the groups utilized ethnic press (such as Telemundo, Singtog, World Journal and Indian television broadcast in Hindi) for health information, while others thought that ethnic press would be slower than the mainstream media (CBS, NBC, ABC and CNN) to receive and relay emergency information.

- 311 was reported as being an effective means of accessing health information in New York City. The number of languages in which 311 operators can communicate was seen in an extremely positive light.

- Mayor Michael Bloomberg was cited as the most reliable messenger of information in a health emergency; however, the groups believed he should be flanked by doctors from several local hospitals and members from the NYC Department of Health and Mental Hygiene when speaking about a health emergency.

- All groups expressed a desire for a constant stream of health information, not just

information during a crisis. This was seen as the primary means to reduce panic and chaos when emergencies do arise. In the majority of groups, it was suggested that flyers be sent occasionally with updates on health issues in the city. The group in Astoria believed that a medical corps should be dispatched to neighborhoods in times of health emergencies in order to distribute information.

> ***"The Health Department needs to talk to us along the way, not just in times of crisis"***
> Young Jamaican man, Wakefield, Bronx

- The groups in Wakefield Bronx, Washington Heights and Bedford-Stuyvesant specifically requested more face-to-face communication with individuals of the health department. The Astoria group and the Wakefield group both discussed that public health should be better "branded". They discussed their perception that currently there is no face (person) who is recognized as the health authority in the city.

Overarching Themes: Religion and World View

Although not in our interview guide, the topic of religion surfaced in all groups as health issues and emergencies were discussed.

- In the Jamaican group, church was seen as a resource for not only spiritual needs, but also for planning and response to disasters. Prayer and "listening to God to learn what to do" was mentioned in the Jamaican, Dominican and African-American groups. Religion often seemed to influence participants' views on individual responsibility in the Jamaican group. Many of the participants felt that personal safety and health were an individual's responsibility; however, an individual should utilize God in order to make the correct decisions for himself/herself. Many of the Dominican participants volunteered that church was the most constant institution in their lives; while they don't always keep doctor's appointments, they rarely miss church. The Indian group did not directly discuss prayer or God's relationship to their decision making. However, they did discuss the temple as a source of networking and communication.

- Some of the groups revealed dominant world views which directly impact their perceptions of and reaction to disasters. In the Chinatown group, participants held strong beliefs that the government would provide assistance to individuals in times of quarantine, even to the extent of delivering diapers and baby supplies. The Dominican group had more of a fatalistic outlook, and participants shared the belief that "Whatever happens is in God's hands."

Conclusions and Recommendations

As expected, there is variability among ethnic groups as to the ways in which health messages should be communicated and in the perceptions of neighborhood safety and cohesion during a health emergency. Many of the communities felt very isolated from the information stream and believed that their communities would be the last ones to "find out" about a health crisis. Some groups reported that this sense of isolation would increase the chances of neighborhood chaos

in a health emergency. Increased community engagement with the NYCDOHMH, including communication during times of preparation and planning, was discussed as being a method of reducing chaos should an emergency occur.

For some groups, mainstream media, particularly radio, seem to be the most effective; while other groups tend to utilize ethnic press for information. The communication matrix **(Appendix B)** provides a concise listing of preferred information sources. In four of the six communities, Mayor Michael Bloomberg was mentioned as the individual who should deliver information about emergency health situations in New York City; however, many participants believed he should be accompanied by medical professionals.

The other two groups (Jamaican in Wakefield and Dominican in Washington Heights) suggested that communication be conducted physically in the neighborhood—through door to door canvassing and through the churches.

In NYC, 311 was seen as being an extremely effective means by which people of different ethnicities and languages can attain information. In several groups, Michael Bloomberg was given credit for the creation and implementation of this service, and that could be one of the reasons for his popularity as a messenger.

Recommended Communication Strategy in Times of Health Emergency

1. Messages delivered by Michael Bloomberg, flanked by doctors and NYCDOHMH officials
2. Simultaneous release of information to ethnic press along with release to mainstream sources, such as CNN and the three major networks.
3. Promotion of 311 as a source of health information during a pandemic flu. The need for increased 311 staffing should be taken into account in pandemic flu planning. In order to assure 311 operators own safety during a pandemic, plans should be put in place so that operators are able to work from remote locations (such as their homes).
4. Increased health department presence in communities during non-emergent times

Appendix A: General Matrix

	Jamaican	African American	Chinese	Dominican	Greek	South Indian
Borough	Bronx	Brooklyn	Manhattan	Manhattan	Queens	Queens
SES	Low-mid	Low	Low-mid	Low	Middle	Upper
Social networks	Church was a place of networking and information. The Pastor was especially influential and encouraged preparedness.	None. Individuals reported feeling disconnected and on their own.	Strong family ties. Strong belief in government as responsive.	Family based culture, and families will take care of each other. There is fear that they will be forgotten by government during a health crisis, especially a quarantine situation	Participants felt that current disaster preparedness networks are inadequate and expressed desire for more structured, formalized networks.	Strong. Wide geographical network. Participants are linked by community list serves and Indian Associations. Participants provided names of community leaders who could activate networks
Neighborhood Cohesion	People helped each other during the blackout-everyone put food on grill and shared candles. Neighbors regularly take emergency kits to "shut ins."	Concern that people can't/won't get along in times of emergency. Some respondents reported that looting occurred during blackout.	Belief that people will be stable and calm in a health emergency and will follow government instructions. Concern that there would be a black market for medications.	Neighbors will help each other-but fear about spreading disease might impact willingness to assist others.	In general people will help each other. The blackout was a "party" for most. Since the blackout, people tend to keep more food in the house	Family, not neighborhood is central.
Trust in government	*Very Low/non existent.* Government was seen as one entity, although when pushed, participants did agree that fire departments can provide good information	*Resigned trust* Participants believed that they only receive information that government wants them to hear, but have no other choice.	*Absolute trust.* Reliance on government to provide basic supplies in emergency.	*Better than the alternative* Participants reported that the government does not care about poor people—but services are much better here than in country of origin.	*Mixed.*	*High.* Very proud to be Americans.

	Jamaican	African American	Chinese	Dominican	Greek	South Indian
Perceived access to health information	*Limited.* Believed that they were not given constant streams of information but asked to comply during times of emergency. Several people asked for sources of information and if we could meet with them again.	*Very Limited.* Perceived lack of proximity to hospitals and scientists results in exclusion from information loop. Feel like they information stream is slow compared to richer areas of the city	*Adequate.* Can call 311 and ask for help.	*Limited.* Participants perceived that they often don't have the information needed to make good decisions.	*Minimal-Adequate.* People who have BlackBerries will be at advantage, and those with CNN. If need be, participants could call friend or private doctor.	*Extensive.* Feel very connected to medical establishment and scientific community.
Individual responsibility vs. Government	Should be individual tapping his/her resources. Some animosity against minorities in New Orleans who were perceived as victims.	Older participants had perception that people in neighborhood aren't able access information and thus can not make good decisions. Younger participants felt internet equalizes access.	Government responsibility to inform individuals what the plan/policies are. Perception if that if government does that, individuals will comply.	Participants believe government needs to take care of people but don't think the system has the capacity to do so.	Split 50/50. Most would leave the city immediately. Some participants had homes in Greece, which they reported they would evacuate to.	Trust the government, but understand the complexities of responding to a wide scale disaster. Reliance on family and individual.
Trust in media	No. There is a belief that the media is not truthful and only reports what is in the government's interest to have reported.	More trust in mainstream media than in ethnic press.	Yes, but only if the media is reporting what government says.	Yes, especially the Spanish media.	Yes, but require 2nd opinion. Participants believe that the media is basically good but people have to realize its limitations (i.e. willingness to release premature or inaccurate information).	Yes, especially public radio and Indian media.

	Jamaican	African American	Chinese	Dominican	Greek	South Indian
Vaccinations	Skepticism about vaccine. Belief that cures for other illness exist, but aren't being shared with public. Some participants questioned why someone would put a virus into his/her body.	Split 50/50 on whether they would get vaccine. Four were adamantly opposed because they reported the flu shot made them sick.	Not specifically discussed, but from other discussion, conclusion may be drawn that they would be compliant with recommendations.	Yes-all agreed, but did not think there would be equal access. Believed that rich would be vaccinated first (interpretation of what happened with previous flu vaccine shortage in NYC).	Many were jaded by misinformation by government during flu vaccine shortage. Believed that assuring equal access is important	Yes
Emergency Kits and feasibility of one wk quarantine	Everyone had some type of kit. All felt they could survive for a week; some had full-face gas masks.	Participants They'd have to tell us ahead of time so we could go out and get food and water.	Reported that food would be a problem, and the belief that the government would provide it.	Financial limitations restrict feasibility of having weeks of extra food in the house.	Less than half said they had enough food for one week. Since blackout, they reported stockpiling more food.	Willing to purchase kits, no matter what the cost. Some, not all, households have extra food. If quarantined, they would assign one family member to purchase food.
Interpretation of Hurricane Katrina	Example of God's wrath. Belief that the New Orleans government knew risks to the city, but did nothing. Illustrated minority willingness to depend on others for help.	Quarantine in NYC would be like what happened with Hurricane Katrina—chaotic and unnecessary death	Not referenced.	Not referenced.	Perceived government response as being too slow	Participants were frustrated that many citizens don't have health insurance-revealed sense of responsibility to insure individuals outside the immediate community are also taken care of.
Interpretation of 9/11	Perception that money, rather than truth, drives actions. Citations of EPA assertion that air was safe after 9/11. Some believed that hitting Wall Street was an indication of God's wrath.	Not referenced.	Learned that the easy way to attain information was through communication with family in homeland (not in US)	Not referenced.	Mixed. Some trust government more after 9/11, some trust government less. Cited EPA.	Not referenced.

	Jamaican	African American	Chinese	Dominican	Greek	South Indian
Blackout experience and conclusions drawn	People shared grills and candles, indicated level of cooperation between neighbors.	In some areas, there was looting and chaos. It will happen again, b/c it is an opportunity for quick cash.	Learned that the easy way to attain information was through communication with family in homeland (not in US)	Not referenced	Misinformation during blackout resulted in lower confidence in media.	Not referenced.
Religion/spiritu al resources	Yes. Very strong beliefs, "hunches/gut feelings", and end of the world.	In absence of trust in government, participants revealed that they would use prayer to help them make decisions and know what information is correct.	Not referenced.	Church and religion are central to people's lives. Church attendance is regular.	Was general discussion of trust in God.	Temple is a meeting place and social network, but there was talk of spiritual beliefs.
Dominant world view, which could impact behavior during crisis or perceptions	Christian beliefs—people should be in a state of readiness to meet God at all times—mixed with strong belief in individual responsibility to learn and make decisions	Participants felt like second class citizens, removed from power and information. There was an age variation in the group, with older people feeling more disconnected than did the younger individuals	Paternalistic society.	Fatalism. Belief that the future is in God's hands.	Not referenced	Belief in individuals' ability to succeed and in family for support.
Willingness to use masks	Didn't believe simple masks would be effective, thought gas masks would be better. Some already have full-face gas masks.	Mixed belief on whether the gas masks would work, but consensus that the government should provide them.	If the government instructed everyone to wear them, there would be compliance	Very receptive.	All were receptive to wearing masks, but were uncertain their efficacy – consensus was that something –if even imperfect—is	Very receptive.

					better than nothing.	

Appendix B: Communication Matrix

	Jamaican	African American	Chinese	Dominican	Greek	South Indian
Borough	Bronx	Brooklyn	Manhattan	Manhattan	Queens	Queens
SES	Low-mid	Low	Low-mid	Low	Middle	Upper
Good sources of information	•Radio:1010 WINS. •TV: medical professional on Oprah show.	•Radio: but not black stations because "they get all their news late." •TV-NBC, CBS, ABC. Soap opera stations. •311	•Radio: 1480 •Websites: CNN, NY Times. •Papers: Singtog and World Journal.	•Radio: La Mega. •TV: Telemundo, Emergency Broadcast System.	•Radio. •Mainstream media: NBC, Daily News, Post, and Ernie Anastos. •311	•Radio: Public Radio, NPR. •TV: Indian TV networks which broadcast in Hindi. Sanjay Gupta. •311
Messenger	Medical professionals, not politicians. Pastors of churches are very influential	Bloomberg, flanked by doctors from different hospitals.	Must be from the government. In NYC, the mayor should deliver information because he represents the government.	Medical professionals. Councilmen and people going door to door would be ideal.	Bloomberg and the DOH. A new public health service called the "Medical police" should deliver information in neighborhood	Bloomberg and articulate medical professionals.
Type of Message	Continual information, not just in crisis situations. Visual information, such as flyers and signs, is important.	Pamphlets should be distributed on regular basis (i.e. like promotions for recycling). In emergency, the information should be made available at local fire stations.	Government approved message.	Preventative messages in Spanish. Communication during quiet times also- not just at the time of an emergency.	Simple one line messages, repeated over and over, like the fire department's campaign of "stop, drop and roll'	Clear instructions based on medical evidence. Need continuous, transparent communication.
Distribution point for supplies	Schools.	Schools in every district. Information trucks in neighborhood fire station.	311.	Churches.	Schools. Mobile medical vans and "Medical police."	Schools.